

Developing Program Theory for Child Nutrition and Physical Activity Programs

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Learning Objectives

- An introductory understanding of:
 - The value of program theory
 - How to develop program theory for child nutrition and physical activity programs
 - How to capture program theory in a logic model

Overview

- Key terminology
- A Process for Developing Program Theory

Key Terminology

- Pediatric overweight and obesity
 - Overweight = BMI at or above the 85th percentile (age and gender specific)
 - Obesity = BMI at or above the 95th percentile (age and gender specific)

Key Terminology

- Prevention of pediatric overweight & obesity
 - Primary prevention
 - Aimed at helping children maintain healthy weight and avoid overweight and obesity
 - Secondary prevention
 - Aimed at detection of overweight and obesity with the purpose of limiting or reversing its occurrence.
 - Tertiary prevention
 - Aimed at preventing the conditions caused by overweight and obesity

Key Terminology

- Energy Balance

- Energy balance is the state in which energy intake is equivalent to energy expenditure, resulting in no net weight gain or loss.
- In the case of children and youth, the Institute of Medicine uses the term “energy balance” to indicate an equality between energy intake and energy expenditure *that supports normal growth without promoting excess weight gain.*

Key Terminology

- Theory of change
 - In our case, a concise statement of assumptions about how one or more interventions can help a person adopt specific changes.
- Program theory
 - Describes how the theory of change will be implemented in a particular program context.

A Process for Developing Program Theory



1. Define your service population

- Who will you serve?
 - How many
 - Age
 - Sex
 - Race
 - Ethnicity
 - Economic status
 - Geography
 - Other

2. Assess current health status

- How many:
 - Are overweight or obese?
 - Meet guidelines for nutrition, screen time, physical activity, overall energy balance?
 - If you don't know, what do you think?
 - How might you gather the data you need?

3. Define your prevention focus

- What will be your focus?
 - Primary prevention?
 - Secondary prevention?
 - Tertiary prevention?
 - All of the above?

4. Define health status outcomes

- Measurable changes in health status
 - Primary prevention
 - Target in terms of number who become overweight or obese
 - Secondary prevention
 - Target in terms of number who recover from overweight or obesity
 - Tertiary prevention
 - Target in terms of number who develop co-morbid conditions

5. Define behavioral outcomes

- Measurable changes in individual behaviors needed to achieve health status outcomes
- How many will:
 - Change their nutrition behaviors?
 - Change their physical activity behaviors?
 - Change their screen time behaviors?
 - Change their energy balance?

6. Define enabling outcomes

- Measurable changes in knowledge, attitudes & beliefs, skills, and readiness needed to achieve behavioral outcomes
 - Knowledge gains
 - Attitude changes
 - Belief changes
 - Skill changes
 - Readiness changes

7. Define your theory of change

- Your set of assumptions about how one or more interventions can help a person to adopt specific changes
- Must be tested against multiple realities
 - Personal characteristics
 - Parental/caregiver influence
 - Environmental influence

8. Consider personal characteristics

- Natural
 - Age, sex, race/ethnicity, genetic makeup, physical capacity, intellectual capacity, emotional capacity
- Acquired
 - Knowledge, attitudes, beliefs, skills, behaviors, acquired health status

9. Consider parent/caregiver influences

- May vary depending on age of child, program goals, and change theory

10. Consider environmental factors

- Inter-personal factors
 - (parents, teachers, child care workers, health care providers, peers, others)
- Structural factors
 - (program and system structures such as availability of PE, scope of parks and rec programs, health care provider reimbursement, others)
- Natural factors
 - (water, air, climate, terrain)
- Built environment
 - Influence of man-made structures

10. Consider environmental factors

- Consider inter-personal, structural, natural, and built factors by setting:
 - Home environment
 - Family environment
 - Social environment
 - Community environment
 - School environment
 - Child care environment
 - Health care environment
 - Public health environment
 - Faith community environment
 - Parks and recreation environment
 - Commercial food environment
 - Media environment
 - Economic environment
 - Other environmental factors

11. Consider research & expert opinion

- Interpret research and expert opinion in light of the specific population you aim to serve, their health status, the target outcomes, and the considerations listed in 8-10

12. Define your intervention points

- Which intervention points are likely to have an impact?
- Which intervention points can your program affect?
- Do you need to collaborate with others?

12. Define your intervention points

- Intervene directly with the child
- Intervene directly with parents or caregivers
- Intervene through schools
- Intervene through child care centers
- Intervene through health care providers
- Intervene through other community based organizations
- Intervene through restaurants
- Intervene through stores
- Intervene through employers
- Intervene through community planning agencies
- Intervene through media outlets
- Intervene through local, state, or federal policy
- Intervene through other vehicles.

13. Define required services & supports

- What services and supports will your program provide?
 - Education
 - Counseling
 - Referral
 - Case management
 - Health care
 - Skills training
 - Media campaign
 - Community advocacy
 - Policy advocacy
 - Technical assistance
 - Other?

14. Define your intervention strategies

- How will you deliver your services and supports?
 - Directly through your organization?
 - In collaboration with other organizations?
 - What specific strategies will you employ?

15. Define organizational and system capacity outcomes

- Will you need to build your organizational capacity to deliver your services and supports?
- Will you need to build external system capacity to deliver your services and supports?

16. Define inputs, activities, outputs

- **Outputs**
 - The products of the program – number of people served, number of service units delivered, etc.
- **Activities**
 - The major actions needed to implement a program
- **Inputs**
 - The major resources needed to implement a program

17. Develop and test your logic model

- Develop a program logic model
- Test your logic model with other informed people